Fisher&Paykel appliances

Service Manual

Gas Cooktops

USA, Canada

Models

GC912 and GC913 series

599328A

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The specifications and servicing procedures outlined in this manual are subject to change without notice.

The latest version is indicated by the reprint date and letter and replaces any earlier editions.

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Models covered by this manual

MODEL	PRODUCT CODE
GC912	88441
GC912M	88442
GC913	88452-A

Service assistance

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1. Service requirements

1.1 Health and Safety

When servicing the cooktop, health and safety issues must be considered at all times. Specific
safety issues are listed below with their appropriate icon. They are illustrated in the service procedures to remind service people of the issues.

Electrical safety. Isolate the cooktop from the electrical supply before servicing. Failure to do so could result in an electric shock.

Gas leak hazard. Isolate the cooktop from the gas supply if necessary before servicing and leak test after all gas related repairs.

Sharp metal edges. Take care and use appropriate protection when handling sharp metal edges to avoid laceration.

Gas fittings are **torque sensitive**, over tightening could damage them and cause a gas leak.

Heat hazard. Ensure wiring is correctly routed away from potentially hot metal parts.

Ensure the work area is clean and tidy at all times to avoid a hazard while service work is being carried out. Clean the cooktop and tidy the work area after service work is completed.

1.2 General warning

Only qualified gas and electrical service people should service this product.

2. Specifications

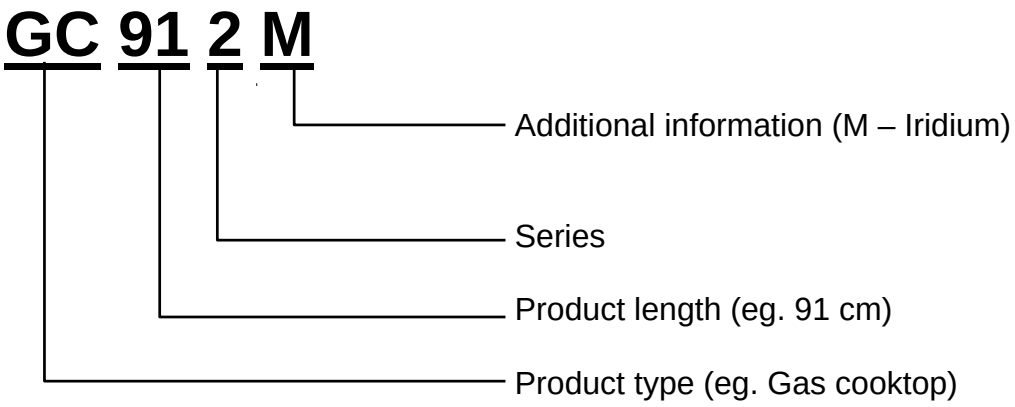
2.1 Product overview

Model	GC912	GC912M	GC913
Supply voltage	110/120	110/120	110/120
Flame failure auto reignition	✓	✓	✓
Brushed stainless steel panels	✓		✓
Iridium stainless steel panels		✓	
Wok burner	14000BTU/h	20000BTU/h	20000BTU/h
Indicator neons, innovalves			✓

2.2 Model number

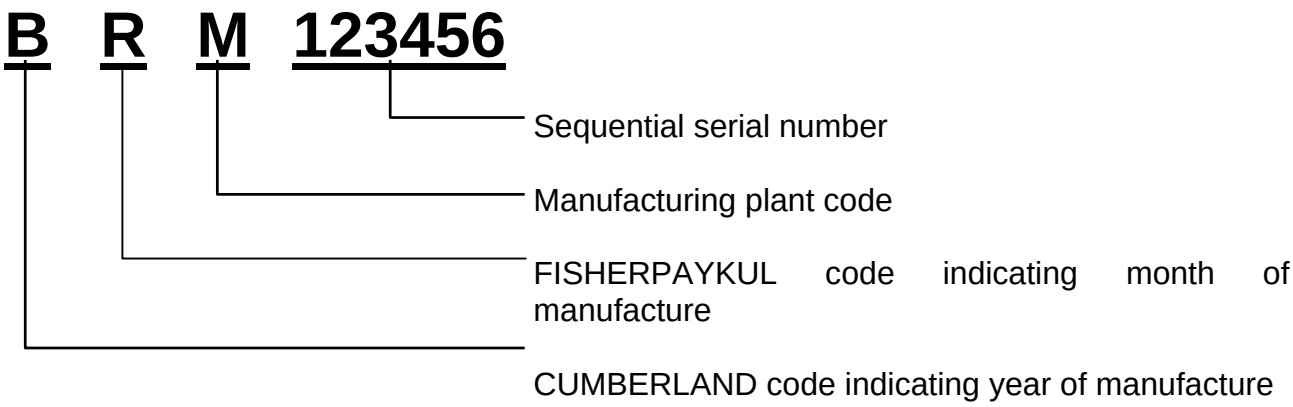
Note: A model and serial number label is located on the underside of the cooktop and on the cover of the use and care guide supplied with the product. An extra label is provided for the installer to place in a convenient location.

The model number contains information as shown in the following example:



2.3 Serial number

The serial number consists of three letters and six digits and contains the information shown in the following example:


B R M 123456
Sequential serial number
Manufacturing plant code
FISHERPAYKUL code indicating month of manufacture
CUMBERLAND code indicating year of manufacture

Cumberland code

Letter	C	U	M	B	E	R	L	A	N	D
Year	1	2	3	4	5	6	7	8	9	0

Fisherpaykul code

Letter	F	I	S	H	E	R	P	A	Y	K	U	L
Month	1	2	3	4	5	6	7	8	9	10	11	12

Manufacturing plant code

A	Laundry – Cleveland, Australia
F	Refrigeration – Auckland, New Zealand
M	Range and Dishwasher – Dunedin, New Zealand
N	Laundry – Auckland, New Zealand
Q	Refrigeration – Cleveland, Australia

In the example above, the appliance was manufactured in the sixth month (June) of the fourth year (2004) at the Range and Dishwasher plant in Dunedin, New Zealand.

2.4 Electrical

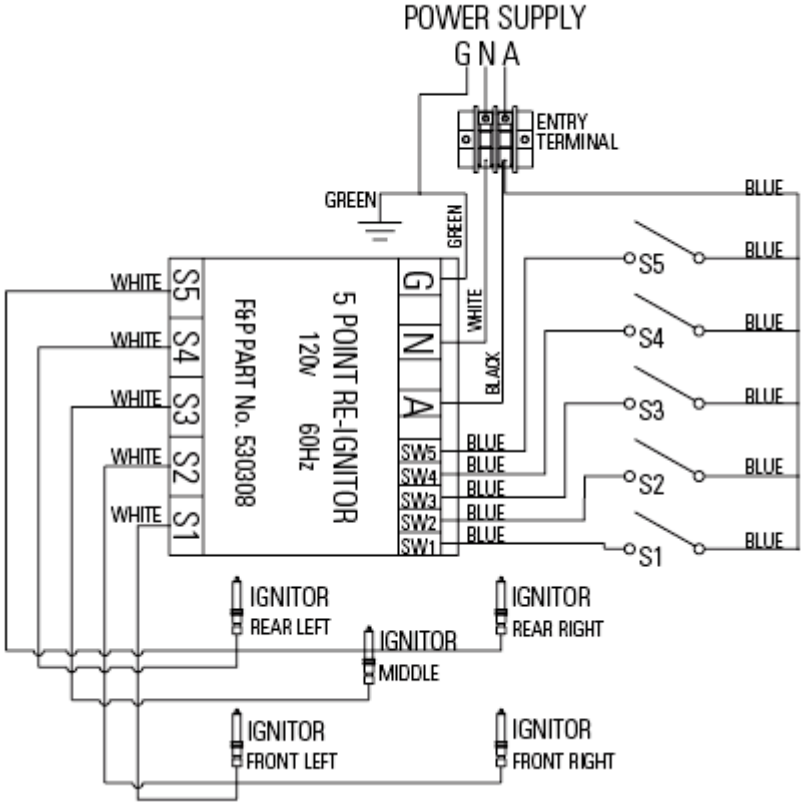
Mains powered ignition system – 110/120V 0.6VA

3. Installation requirements, burner ratings and orifice sizes, gas conversion and low flame setting adjustment.

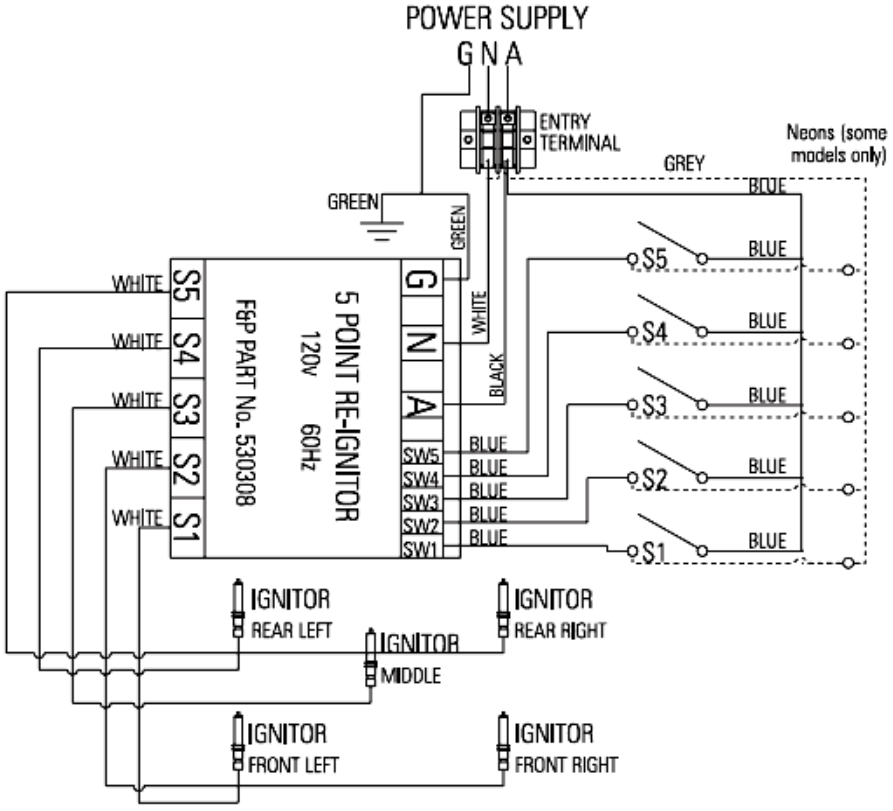
Refer to the installation instructions supplied with the product, or available on the Fisher & Paykel website – http://usa.fisherpaykel.com

4. Wiring diagrams

4.1 GC912 cooktops



4.2 GC913 cooktop



5. Servicing Procedures

Refer to the Service requirements before servicing, Section 1 page 6

5.1 To remove the hob top and tray

1. Lift off the trivets and burner components.
2. Remove the knobs.
3. Remove the screws securing each burner to the hob tray.
   - To prevent damaging the screw head use a No. 1 Phillip's head screwdriver.
4. Lift the hob tray out of the hob top.
5. Remove the hob top.

5.2 To remove the cooktop from the bench/countertop

Note: It is easier to service the internal components by removing the hob top and tray rather than removing the product from the bench.

1. Unplug the electrical supply lead.
2. Turn off the gas supply and disconnect the inlet gas pipe.
3. Loosen the cooktop clamping brackets.
4. Lift the cooktop out of the bench.

5.3 To remove an electrode

1. Remove the hob top and tray.
2. Remove the electrode locating clip on the burner bowl.
3. Unplug the electrode lead from the ignition box.

5.4 To remove the ignition box

1. Remove the hob top and tray.
2. Remove the neon mounting bracket by pulling it upward (GC913 only).
3. Unplug the electrode leads and the multi-way plug from the ignition box.
4. Lift off the ignition box attached to the basepan by double-sided tape.

Note: The electrode leads must be plugged into the correct terminals on the ignition box. Terminal numbers on the ignition box correspond as follows:

S1 Front left burner
S2 Front right burner
S3 Middle burner
S4 Rear left burner
S5 Rear right burner

5.5 To remove the microswitch assembly

1. Remove the hob top and tray.
2. Remove the neon mounting bracket by pulling it upward (GC913 only).
3. Remove the microswitch assembly wires connected to each neon (GC913 only).
4. Lift the switches off the gas valves.
5. Disconnect the active and neutral wires from the terminal block.
6. Disconnect the earth from the terminal block or basepan and unplug from the ignition box.

5.6 To remove a gas valve

1. Remove the cooktop from the benchtop.
2. Remove the hob top and tray.
3. Remove the microswitch assembly.
4. Disconnect all the aluminium tubes from the gas valve outlets.
5. Remove the screws securing the manifold to the basepan.
6. Remove the gas valve from the manifold.

Note: Leak test all gas connections. Block each injector orifice in turn and open the valve to leak test the gas connections beyond the valve.

- Check and adjust the low flame setting.

5.7 To service a gas valve

1. Remove the hob top and tray.
2. Remove the microswitch assembly.
3. Remove the screws on the top of the gas valve.
4. Gently lift out the valve cone and clean with solvent.
5. Regrease the cone with high temperature grease.
6. Refit and rotate the cone.
7. Lift out the cone, remove any excess grease and check the holes in the cone and the valve body are not blocked.
8. Reassemble the valve assembly.
9. Open and close the valve several times.

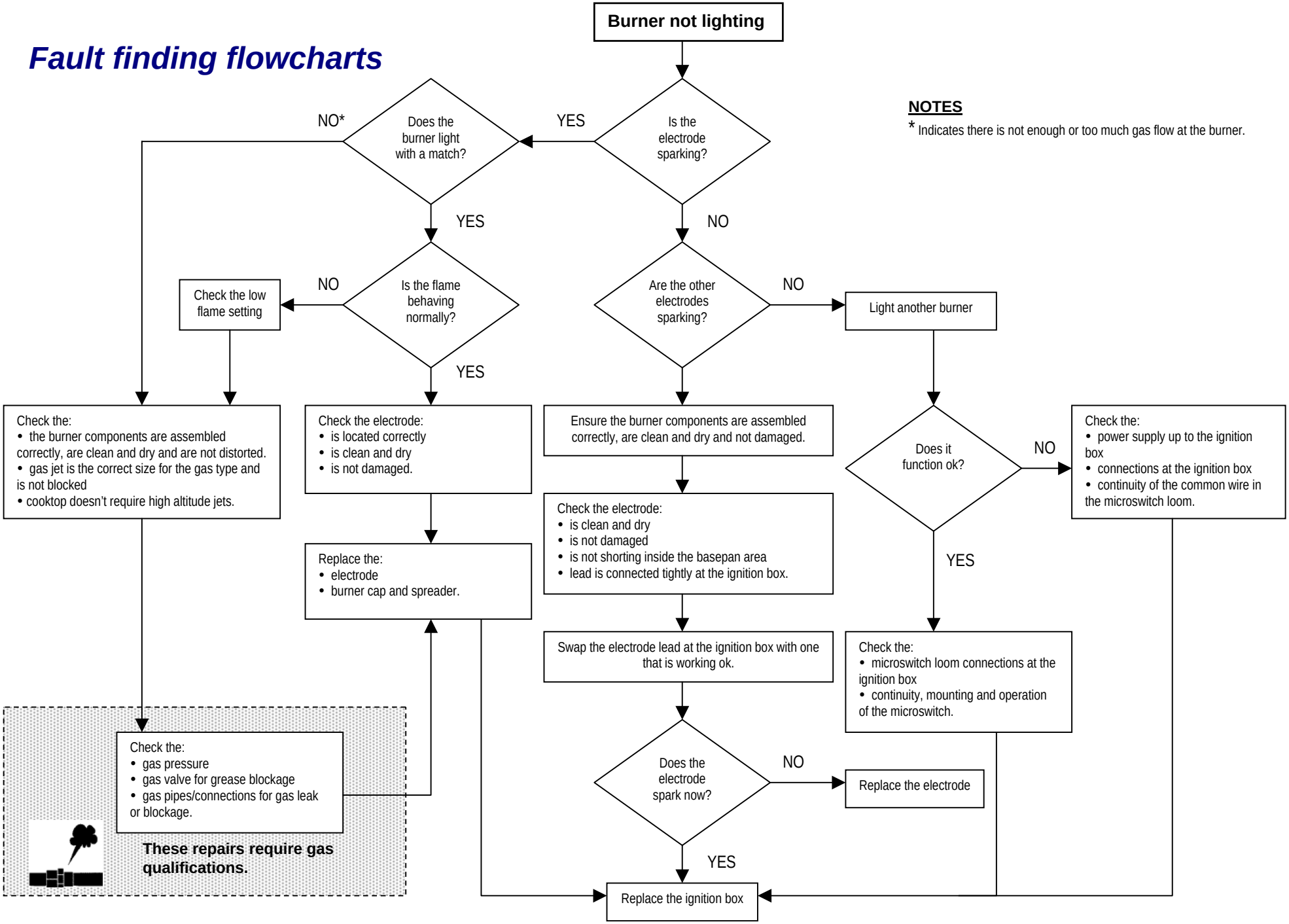
Check the valve for leaks.

6. Fault finding checksheet

Fault finding 912/913 series	**Burner not lighting – no spark**		**Burner not lighting – is sparking**		**Burner lights but doesn't stop sparking**	**Flame doesn't stay lit or is yellow or distorted**
	On all burners?		**On all burners?**			
	Y	**N**	**Y**	**N**		
Are the burner components clean and dry, not damaged and correctly fitted	**?**	**?**	**?**	**?**	**?**	**?**
Is the electrode clean and dry		**?**		**?**	**?**	
Is the electrode located correctly		**?**		**?**	**?**	
Is the electrode damaged, is the harness shorting inside the basepan		**?**		**?**	**?**	
Is the electrode connected to the correct ignition box terminal		**?**		**?**	**?**	
Is the microswitch loom correctly located and continuity ok	**?**	**?**				
Is the gas pressure correct			**?**		**?**	**?**
Is the low flame setting correct					**?**	**?**
Is the cooktop set for the correct gas type, are the correct jets fitted or is the jet blocked			**?**	**?**	**?**	**?**
Is the power supply correct (voltage and polarity), is the cooktop properly earthed	**?**				**?**	
Is there a draft or air flow affecting the flame					**?**	**?**

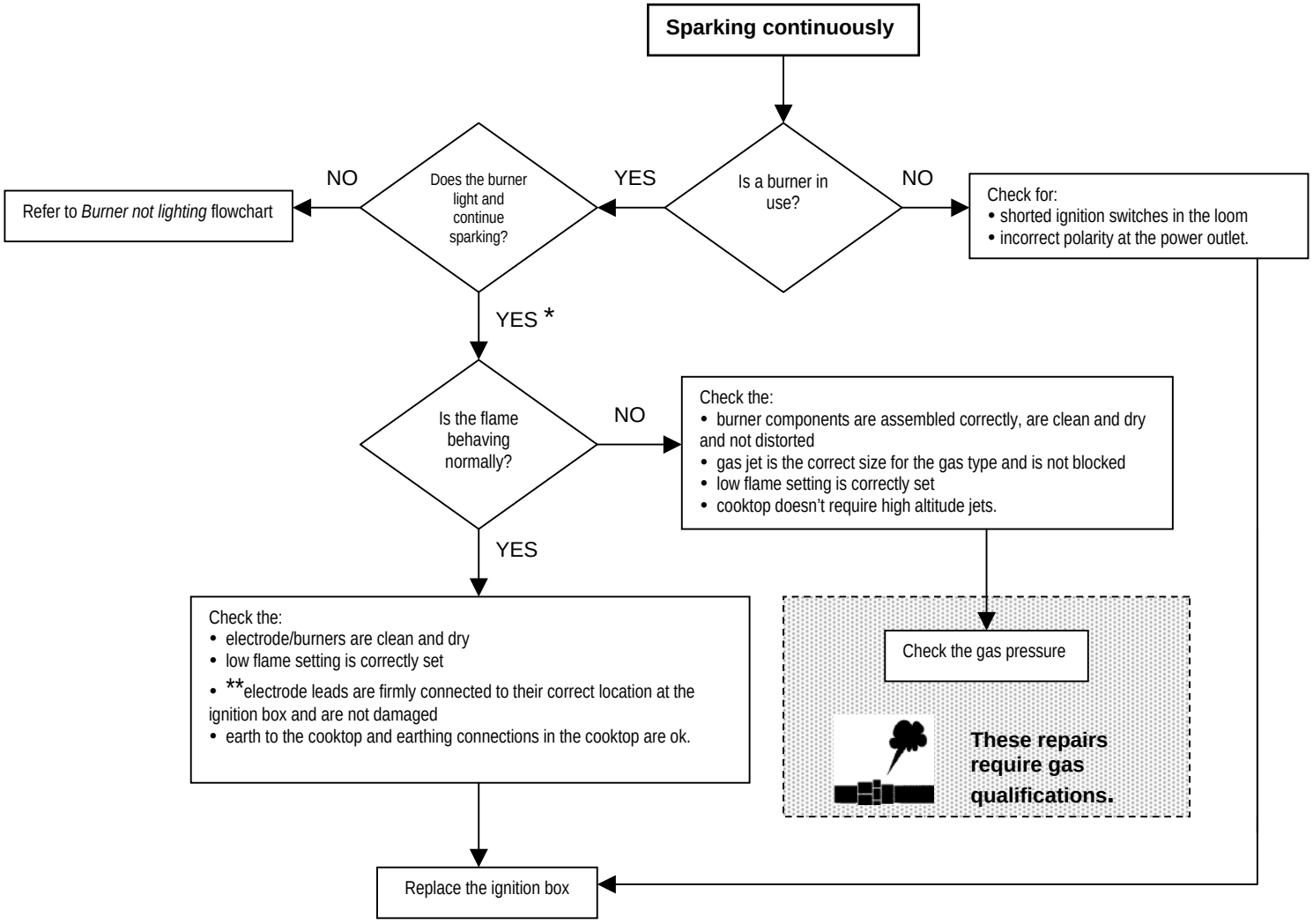
? - Check

7. Fault finding flowcharts


Burner not lighting
Is the electrode sparking?
YES
Does the burner light with a match?
NO*
NO
Are the other electrodes sparking?
NO
Light another burner
YES
Is the flame behaving normally?
NO
Check the low flame setting
YES
Check the:
• the burner components are assembled correctly, are clean and dry and are not distorted.
• gas jet is the correct size for the gas type and is not blocked
• cooktop doesn't require high altitude jets.
Check the electrode:
• is located correctly
• is clean and dry
• is not damaged.
Ensure the burner components are assembled correctly, are clean and dry and not damaged.
Does it function ok?
NO
Check the:
• power supply up to the ignition box
• connections at the ignition box
• continuity of the common wire in the microswitch loom.
YES
Replace the:
• electrode
• burner cap and spreader.
Check the electrode:
• is clean and dry
• is not damaged
• is not shorting inside the basepan area
• lead is connected tightly at the ignition box.
Swap the electrode lead at the ignition box with one that is working ok.
Check the:
• microswitch loom connections at the ignition box
• continuity, mounting and operation of the microswitch.
Does the electrode spark now?
NO
Replace the electrode
YES
Check the:
• gas pressure
• gas valve for grease blockage
• gas pipes/connections for gas leak or blockage.
These repairs require gas qualifications.
Replace the ignition box

NOTES

* Indicates there is not enough or too much gas flow at the burner.


Sparking continuously
Is a burner in use?
NO
Check for:
• shorted ignition switches in the loom
• incorrect polarity at the power outlet.
YES
Does the burner light and continue sparking?
NO
Refer to *Burner not lighting* flowchart
YES *
Is the flame behaving normally?
NO
Check the:
• burner components are assembled correctly, are clean and dry and not distorted
• gas jet is the correct size for the gas type and is not blocked
• low flame setting is correctly set
• cooktop doesn't require high altitude jets.
YES
Check the:
• electrode/burners are clean and dry
• low flame setting is correctly set
• **electrode leads are firmly connected to their correct location at the ignition box and are not damaged
• earth to the cooktop and earthing connections in the cooktop are ok.
Check the gas pressure
These repairs require gas qualifications.
Replace the ignition box

NOTES

* Indicates the flame isn't being sensed.

** The correct electrode positions at the ignition box -

Terminal	Burner
S1	Front left
S2	Front right
S3	Middle
S4	Rear left
S5	Rear right